

ABSTRACT OF THE DISCLOSURE

A method and apparatus that allows communications of electrical power and signaling from downhole component to another downhole component employs an inductive coupler assembly. In one arrangement, one portion of the inductive coupler assembly is attached to a production tubing section and the other portion of the inductive coupler assembly is attached to a casing or other liner section. The production tubing inductive coupler portion is electrically connected to a cable over which electrical power and signals may be transmitted. Such power and signals are magnetically coupled to the inductive coupler portion in the casing or liner section and communicated to various electrical devices mounted outside the casing or liner section. In other arrangements, inductive coupler assemblies may be used to couple electrical power and signals from the main bore to components in lateral branches of a multilateral well.